

In the Abstract

Please add the abstract as follows:

The disadvantages associated with the prior art are overcome by a method and apparatus for reducing multipath distortion in a television signal. Specifically, a plurality of antenna elements receive spatially unique replicas of a desired television signal. The spatially unique replicas are coupled to an adaptive combiner, which generates a spatially combined signal to be coupled to a television receiver. The adaptive combiner forms a weighted summation of the spatially unique replicas, which effectively places spatial nulls in the direction of the multipath interference. The weighting information is provided by an adaptive controller that uses intelligence from a multipath processor located within the apparatus. The intelligence may take the form of a figure of merit derived from the combiner output, or from processing performed on the input signals themselves.